

The Indiana Department of Transportation (INDOT) is seeking an experienced partner to provide telemetry equipment, real time data collection, data analysis and reporting to help the agency improve operational efficiency and reduce fleet costs. INDOT will initially pursue a telematics system for the heavy duty truck fleet. INDOT operates a fleet of approximately 1,000 heavy trucks used primarily for winter operations (including snow removal and salt/brine application) and during construction and road maintenance operations.

INDOT seeks to achieve the following objectives through the implementation of a telematics program:

1. Real time data necessary to provide cost saving initiatives and optimize fleet size
2. Reduce idle time to increase fuel economy and reduce mechanical wear
3. Improve identification of mechanical issues to reduce labor hours and vehicles down time
4. Improve efficiency on construction and maintenance operations utilizing the heavy truck fleet, such as chip seal applications, paving, and ditch cleaning
5. Improve scheduling and management of work crews associated with the heavy truck fleet and vehicles
6. Improve historical and current location information to assist in resolving claims and recovering missing or stolen equipment
7. Optimize or reduce snow routes, including the improvement salt/brine reloading protocols
8. Optimize salt/brine application according to weather and road conditions
9. Reduce travel time for salt reloading
10. Establish a “level of service” performance measure, based on mobility and travel speeds for snow and ice removal activities, that assists managers in efficient and dynamic deployment of resources
11. Integrate data collection and tracking to measure winter operations impact and effectiveness
12. Improve the customer service and transparency of INDOT winter operations

The selected vendor shall provide all equipment, service and labor to collect and analyze the data necessary to assess the current conditions associated with each of the objectives listed above.

#### **INDOT - TELEMATICS PROGRAM AND SERVICE REQUIREMENTS:**

##### **Equipment Requirements**

1. In-truck Telemetry Equipment and Dashboard-mounted Cameras
  - a. Tamper-resistant, and if possible, sends a remote indicator when tampering has been attempted
  - b. Designed, warranted and capable of withstanding severe conditions, including exposure to water, corrosive materials, vibration (including travel over rugged terrain), and extreme temperatures, to include temperature swings
  - c. Uses the existing State of Indiana cellular data network contract
  - d. Allows INDOT approved third party hardware devices to share cellular network connection
  - e. Allows for the integration of a wide array of sensors and hydraulic controllers

##### **Installation Requirements**

1. Installation of equipment in a minimum of one-third of the INDOT heavy truck fleet within 30 days of contract execution and outside normal INDOT operating hours
  - a. Program infrastructure and design must allow for the growth and expansion of additional districts or equipment at the discretion of INDOT
  - b. Equipment removal upon request and outside of normal INDOT operating hours
2. The inclusion of all software and/or hardware updates as they become available at no additional cost and outside of normal INDOT operating hours
3. System must allow for variable inputs beyond open/closed voltage triggers
4. Provide the ability to determine application rates of various products, specifically but not limited to salt and brine.

### **Service Requirements**

1. Provides on-site service within 48 hours of receiving notification of a service request
2. Provides an emergency point of contact available 24 hours per day, seven days per week
3. Provides flexible user defined dashboards with real time monitoring and historical data
4. Provides unlimited onsite training for equipment and software at no additional cost
5. Provides full on-site installation support at no additional cost

### **System, Data, Analysis and Reporting Requirements**

1. Provides real-time data and images from truck-mounted telemetry equipment and dashboard-mounted cameras
2. Collects and transmits data from truck-mounted telemetry equipment in real-time
3. Collects and transmits still images from dashboard-mounted cameras every 10 minutes
4. Analyzes all collected data, and provides reports that assist INDOT in achieving the operational efficiencies outlined
5. Provides monthly meetings that review and explain reports and analysis to support INDOT in achieving operational efficiency
6. Provides data analysis tools and training that support INDOT in achieving operational efficiency
7. Provides fuel usage data and meter data that integrates into the existing INDOT Fleet Management System
8. Provides for INDOT to retain ownership of all collected data, the analysis of that data, all reports, and all analysis tools provided under any contract
9. Provides that all data collected, analyses performed, and analysis tools provided during the contract will not be considered proprietary to the Vendor
10. Provide all collected data, time-stamped and ready for use in analysis, in a format compatible with current INDOT data systems, including but not limited to Microsoft Office applications (version 2007 and newer), Iteris, CARS, and the INDOT Work Management System (WMS) and M5 Fleet Management System
11. Provide a system that saves all real time and historical data in a central location
12. Provide the ability to aggregate asset usage by districts, sites and groups
13. Provide the ability to manually track and assign assets to individual contacts
14. Provides flexible syncing capabilities
15. Provides superior user permissions and district level access with complete interface permission controls
16. Provides advanced mapping, to include trip segments and sensor integration
17. Provides custom ad-hoc reports, as requested
18. Provide initial and ongoing detailed ROI analysis and reporting